

IN THE CLAIMS:

Claims 1-3. (Canceled)

4. (Currently Amended) An image pickup system for capturing the image of a subject, comprising:

an image pickup element that constitutes one image-captured surface by arranging a plurality of scanning lines having a first number of pixels, the image pickup element being provided in an endoscope;

a drive circuit for outputting, to the image pickup element, a drive signal with a first frequency for sequentially reading an image-captured signal image-captured on the image captured surface of the image pickup element for every scanning line, the drive circuit being provided in the endoscope;

a line memory having a memory capacity, which can store one scanning line of image-captured signals read from the image pickup element;

an oscillator for generating a clock signal;

a frequency dividing circuit which divides the clock signal to generate a signal for the drive circuit which enables the drive circuit to generate the drive signal, the frequency dividing circuit being provided in the endoscope;

a writing signal generating circuit for outputting a writing signal with the first frequency to the line memory for writing the image-captured signal to the line memory, the writing signal generating circuit generating the writing signal based on the signal generated by frequency dividing circuit;

a reading signal generating circuit for outputting a reading signal with a second frequency, which is higher than the first frequency, to the line memory for reading image-captured signals stored in one scanning line from the line memory, the reading signal generating circuit generating the reading signal based on the clock signal generated by the oscillator; and

a video signal processing circuit for performing video signal processing on the image-captured signals read with the second frequency from the line memory.

5. (Previously Presented) The image pickup system according to Claim 4, wherein the video signal processing circuit has an enlarge/reduce processing function for performing horizontal enlargement or reduction.

6. (Previously Presented) The image pickup system according to Claim 5, further comprising:

superposing means for superposing an externally input image signal on an image-captured signal processed in the video signal processing circuit; and

superimposing position control means for controlling a superimposing position of the externally input image signal in accordance with an image pickup element self-contained in a connected image pickup unit.

7. (Currently Amended) An image pickup system for imaging a subject, comprising:
a first image pickup unit self-containing a first image pickup element that constitutes one image-captured surface by arranging a plurality of scanning lines having a first number of pixels, the first image pickup unit being provided in an endoscope;

a first drive circuit provided in the first image pickup unit for outputting, to the first image pickup element, a first drive signal with a first frequency, which can sequentially read, for every scanning line, image-captured signals for one screen image-captured on the image-captured surface of the first image pickup element, the first drive circuit being provided in the endoscope;

an oscillator for generating a clock signal;

a first frequency dividing circuit which divides the clock signal to generate a first signal for the first drive circuit which enables the first drive circuit to generate the first drive signal, the first frequency dividing circuit being provided in the endoscope;

a first writing signal generating circuit for generating a first writing signal with the first frequency, which can sequentially write, for every scanning line, image-captured signals for one screen from the first image pickup element read by the first drive signal, the first writing signal generating circuit generating the first writing signal based on the first signal generated by the first frequency dividing circuit;

a second image pickup unit self-containing a second image pickup element that constitutes one image-captured surface by arranging a plurality of scanning lines having a second number of pixels, which is larger than the first number of pixels, the second image pickup unit being provided in the endoscope;

a second drive circuit provided in the second image pickup unit for outputting, to the second image pickup element, a second drive signal with a second frequency, which can sequentially read, for every scanning line, image-captured signals for one screen image-captured on the image-captured surface of the second image pickup element, the second drive circuit being provided in the endoscope;

a second frequency dividing circuit which divides the clock signal to generate a second signal for the second drive circuit which enables the second drive circuit to generate the second drive signal, the second frequency dividing circuit being provided in the endoscope;

a second writing signal generating circuit provided in the second image pickup unit for generating a second writing signal with the second frequency, which can sequentially write, for every scanning line, image-captured signals for one screen from the second image pickup element read by the second drive signal, the second writing signal generating circuit generating the second writing signal based on the second signal generated by the second frequency dividing circuit;

a camera control unit to which at least one of the first image pickup unit or the second image pickup unit is connected freely removably,

a line memory provided in the camera control unit for sequentially storing image-captured signals for one scanning line from a connected image pickup unit based on a writing signal from the image pickup unit connected to the camera control unit;

a reading circuit for reading image-captured signals for one scanning line which are output and stored in the line memory, with the second frequency, the reading circuit generating a reading signal based on the clock signal generated by the oscillator; and

a video signal processing circuit provided in the camera control unit for performing video-signal processing on the image-captured signals read with the second frequency from the line memory by using the reading circuit.

8. (New) The image pickup system according to claim 4, wherein the image pickup element is provided in a camera head for an endoscope.

9. (New) The image pickup system according to claim 7, wherein the image pickup element is provided in a camera head for an endoscope.